

**ICF International**

Environmental Services Assistance Team, Region 9
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MEMORANDUM

TO: Karen Jurist, Remedial Project Manager
 Site Cleanup Section 3, SFD-7-3
 USEPA Region 9

THROUGH: Joe Eidelberg, Chemist
 Quality Assurance (QA) Program, MTS-3
 USEPA Region 9

FROM: Kathy O'Brien, Project Manager
 Environmental Services Assistance Team (ESAT) Region 9
 ICF International

ESAT Contract No.: EP-W-13-029
 Technical Direction Form No.: 10106100

DATE: September 30, 2015

SUBJECT: Review of Analytical Data, **Tier 3**

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Southern Avenue Industrial Area
Site Account No.:	09 WS QB 00
Casc No.:	45436
SDG No.:	Y9XT5
Laboratory:	KAP Technologies, Inc. (KAP)
Analysis:	CLP Trace Volatiles, MA No. 2446.0
Samples:	20 Groundwater Samples
Collection Date:	July 23, 24, 27, and 28, 2015
Reviewer:	Estrellita Manuel, ESAT

EXES Data Manager has been updated; the dynamic deliverables were regenerated and are available on the SMO Portal.

If there are any questions, please contact Joe Eidelberg (QA Program/EPA) at (415) 972-3809.

Attachment

cc: Raymond Flores, CLP PO USEPA Region 6
 Steve Remaley, CLP PO USEPA Region 9

CLP PO: FYI Action

SAMPLING ISSUES: Yes No

Data Validation Report - Tier 3

Case No.: 45436
SDG No.: Y9XT5
Site: Southern Avenue Industrial Area
Laboratory: KAP Technologies, Inc. (KAP)
Analysis: CLP Trace Volatiles, MA No. 2446.0
Reviewer: Estrellita Manuel, ESAT
Date: September 30, 2015

I. SDG SUMMARY

For Sample Information and Laboratory Quality Control (QC), refer to EXES National Functional Guidelines (NFG) data validation reports *Analytical Sample Listing* and *Organic Analytic Sequence*.

Field QC

Field Blanks (FB): None.
Trip Blanks (FB): Y9Y05, Y9Y06, Y9Y07, and Y9Y08 (in SDG Y9XW3).
Equipment Blanks (EB): Y9Y00 (in SDG Y9XW3).
Background Samples (BG): None.
Field Duplicates (D1): Y9XT6 and Y9XT7.
Field Duplicates (D2): Y9XZ5 and Y9XZ6.

Tables

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review

CLP PO Action

None.

Sampling Issues

Samples Y9XT6 and Y9XW0 were received at the laboratory with one broken vial. There was enough sample volume in the other two vials for analysis.

Additional Comments

The trichloroethene present in sample Y9XY8 was incorrectly reported as nondetected (i.e., a false negative). The laboratory submitted revised data (Form I, quantitation report, and chromatogram) and mass spectra upon request, on 09/25/15 (see Table 1A for concentration). The revised result has been entered into the EXES Data Manager.

Samples Y9XT8, Y9XZ2, and Y9XW0 were analyzed at 5-, 5-, and 10-fold dilutions, respectively, due to high concentrations of analytes. The quantitation limits for these samples in Table 1A have been raised to account for the dilution.

All standards and spiking solutions were analyzed before the expiration date.

The recovery for DMC chloroethane-d5 exceeds QC limit in sample Y9XZ9 (134%), indicating potential high bias in detected results; qualification is not necessary because the associated target analytes are not detected.

Other than laboratory artifacts (retention time 2.6-3.0, 10.6, and 11.4 minutes), tentatively identified compounds (TIC) were found in samples Y9XW2, Y9XY7, Y9XZ4, Y9XZ8, and Y9XZ9 (see attached Form 1B).

The laboratory performed manual peak integration on chromatograms for some calibrations and samples. Manual integrations were reviewed and found to be in compliance with CLP Statement of Work (SOW) requirements.

This report was prepared in accordance with the following documents:

- *Addition of 1,2,3-Trichloropropane*, Modified Analysis 2446.0, June 2, 2015;
- *USEPA Contract Laboratory Program Statement of Work for Organics Superfund Methods, Multi-Media, Multi-Concentration*, SOM02.2, August 2014;
- *USEPA National Functional Guidelines for Superfund Organic Methods Data Review*, August 2014.

For technical definitions, refer to *Exhibit G (Glossary of Terms)*, *USEPA Contract Laboratory Program Statement of Work for Organics Superfund Methods, Multi-Media, Multi-Concentration*, SOM02.2, August 2014.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
1	Data Completeness	Yes	
2	Holding Time/Preservation	Yes	
3	GC/MS Tune/GC Performance	Yes	
4	Initial Calibration	Yes	
5	Continuing Calibration Verification (CCV)	No	B
6	Laboratory Blanks	Yes	C
7	Equipment/Trip Blanks	Yes	C
8	Deuterated Monitoring Compounds (DMCs)	Yes	
9	Matrix Spike/Matrix Spike Duplicates (MS/MSDs)	Yes	
10	Internal Standards	Yes	
11	Compound Identification	Yes	
12	Compound Quantitation and Reported CRQLs	Yes	A, D
13	System Performance	Yes	
14	Field Duplicate Sample Analysis	Yes	

III. VALIDITY AND COMMENTS

- Results above the method detection limit (MDL) but below the contract required quantitation limit (CRQL) are estimated and flagged "J" in Table 1A. The results are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in analytical precision near the quantitation limit.
- Results for the following analytes are qualified as estimated due to large percent differences (%Ds) in associated CCVs and are flagged "UJ" in Table 1A.
 - Isopropylbenzene in sample Y9XW2 and trip blank Y9Y07 and method blanks VBLK7U and VBLK7X.
 - 1,2-Dibromoethane in trip blank Y9Y07 and method blank VBLK7X.

The following values exceed the $\pm 25.0\%$ validation criterion.

<u>Analyte</u>	<u>Calibration Date and Time</u>	<u>%D</u>
Isopropylbenzene	08/05/15 00:53	+25.4
Isopropylbenzene	08/05/15 16:19	+25.6
1,2-Dibromoethane	08/05/15 16:19	+30.6

- C. The following results are qualified as nondetected due to method blank and trip blank contamination and are flagged "U" in Table 1A.

- Acetone in samples Y9XZ8 and Y9XZ9.
- Methylene chloride in samples Y9XY7, Y9XZ2, Y9XZ4, and Y9XZ8.

Methylene chloride is found in method blank VBLK7S and trip blank Y9Y07; acetone is found in trip blank Y9Y07 (See Table 1A for concentrations). The result for methylene chloride in Y9XZ2 and results for acetone in Y9XZ8 and Y9XZ9 are reported in Table 1A as nondetected at the reported concentrations.

Results for methylene chloride in samples Y9XT5 (0.30 µg/L) and Y9XT6 (0.26 µg/L) are not qualified because it is not found in the associated method blank and trip blank.

Methylene chloride in these samples may be a laboratory artifact since it is found in method blank VBLK7S and trip blank Y9Y07 (see Table 1A for concentrations).

- D. The samples listed in the table below required further dilution to obtain results within the calibration range for the indicated analytes. Results for these analytes are reported in Table 1A from the higher diluted analyses.

Sample	Dilution	Analyte
Y9XT6	10	cis-1,2-Dichloroethene
Y9XT7	10	cis-1,2-Dichloroethene
Y9XT8	50	cis-1,2-Dichloroethene
Y9XW0	50	cis-1,2-Dichloroethene
Y9XY9	10	cis-1,2-Dichloroethene
Y9XZ0	10	cis-1,2-Dichloroethene
Y9XZ1	10	cis-1,2-Dichloroethene and trichloroethene
Y9XZ2	50	cis-1,2-Dichloroethene
Y9XZ9	5.0	cis-1,2-Dichloroethene.

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XT5 SAIA-CPT14-60 Field_Sample Water/Trace			Y9XT6 (D1) SAIA-CPT14-76 Field_Sample Water/Trace			Y9XT7 (D1) SAIA-CPT14-75 Field_Sample Water/Trace			Y9XT8 SAIA-CPT14-90 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
Vinyl chloride	0.50	U		0.50	U		0.50	U		2.5	U	
Bromomethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
Trichlorofluoromethane	0.50	U		0.50	U		0.50	U		2.5	U	
1,1-Dichloroethene	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U		0.50	U		0.50	U		2.5	U	
Acetone	5.0	U		5.0	U		5.0	U		25	U	
Carbon disulfide	0.50	U		0.50	U		0.50	U		2.5	U	
Methyl acetate	0.50	U		0.50	U		0.50	U		2.5	U	
Methylene chloride	0.30	J	A	0.26	J	A	0.50	U		2.5	U	
trans-1,2-Dichloroethene	0.50	U		8.4			7.1			36		
Methyl tert-butyl ether	0.50	U		0.50	U		0.50	U		2.5	U	
1,1-Dichloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
cis-1,2-Dichloroethene	0.50	U		140		D	130		D	440		D
2-Butanone	5.0	U		5.0	U		5.0	U		25	U	
Bromochloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chloroform	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,1-Trichloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
Cyclohexane	0.50	U		0.50	U		0.50	U		2.5	U	
Carbon tetrachloride	0.50	U		0.50	U		0.50	U		2.5	U	
Benzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dichloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
Trichloroethene	0.50	U		3.1			2.7			2.5	U	
Methylcyclohexane	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dichloropropane	0.50	U		0.50	U		0.50	U		2.5	U	
Bromodichloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
cis-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		2.5	U	
4-Methyl-2-pentanone	5.0	U		5.0	U		5.0	U		25	U	
Toluene	0.50	U		0.50	U		0.50	U		2.5	U	
trans-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,2-Trichloroethane	0.50	U		0.50	U		0.50	U		2.5	U	

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XT5 SAIA-CPT14-60 Field_Sample Water/Trace			Y9XT6 (D1) SAIA-CPT14-76 Field_Sample Water/Trace			Y9XT7 (D1) SAIA-CPT14-75 Field_Sample Water/Trace			Y9XT8 SAIA-CPT14-90 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Tetrachloroethene	0.50	U		0.50	U		0.50	U		2.5	U	
2-Hexanone	5.0	U		5.0	U		5.0	U		25	U	
Dibromochloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dibromoethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
Ethylbenzene	0.50	U		0.50	U		0.50	U		2.5	U	
o-Xylene	0.50	U		0.50	U		0.50	U		2.5	U	
m,p-Xylene	0.50	U		0.50	U		0.50	U		2.5	U	
Styrene	0.50	U		0.50	U		0.50	U		2.5	U	
Bromoform	0.50	U		0.50	U		0.50	U		2.5	U	
Isopropylbenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,2,2-Tetrachloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
1,3-Dichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,4-Dichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dibromo-3-chloropropane	0.50	U		0.50	U		0.50	U		2.5	U	
1,2,4-Trichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2,3-Trichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2,3-Trichloropropane	0.50	U		0.50	U		0.50	U		2.5	U	

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample.

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XW0 SAIA-CPT14-130 Field_Sample Water/Trace			Y9XW2 SAIA-CPT15-60 Field_Sample Water/Trace			Y9XY7 SAIA-CPT19-45 Field_Sample Water/Trace			Y9XY8 SAIA-CPT19-60 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	5.0	U		0.50	U		0.50	U		0.50	U	
Chloromethane	5.0	U		0.50	U		0.50	U		0.50	U	
Vinyl chloride	5.0	U		0.50	U		0.50	U		0.50	U	
Bromomethane	5.0	U		0.50	U		0.50	U		0.50	U	
Chloroethane	5.0	U		0.50	U		0.50	U		0.50	U	
Trichlorofluoromethane	5.0	U		0.50	U		0.50	U		0.50	U	
1,1-Dichloroethene	5.0	U		0.50	U		0.50	U		0.50	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U		0.50	U		0.50	U		0.50	U	
Acetone	50	U		5.0	U		5.0	U		5.0	U	
Carbon disulfide	5.0	U		0.50	U		0.50	U		0.50	U	
Methyl acetate	5.0	U		0.50	U		0.50	U		0.50	U	
Methylene chloride	5.0	U		0.50	U		0.50	U	C	0.50	U	
trans-1,2-Dichloroethene	33			0.50	U		0.50	U		6.7		
Methyl tert-butyl ether	5.0	U		0.50	U		0.50	U		0.50	U	
1,1-Dichloroethane	5.0	U		0.50	U		0.50	U		0.50	U	
cis-1,2-Dichloroethene	770		D	0.50	U		0.50	U		20		
2-Butanone	50	U		5.0	U		5.0	U		5.0	U	
Bromochloromethane	5.0	U		0.50	U		0.50	U		0.50	U	
Chloroform	5.0	U		0.50	U		0.50	U		0.50	U	
1,1,1-Trichloroethane	5.0	U		0.50	U		0.50	U		0.50	U	
Cyclohexane	5.0	U		0.50	U		0.50	U		0.50	U	
Carbon tetrachloride	5.0	U		0.50	U		0.50	U		0.50	U	
Benzene	5.0	U		0.50	U		0.50	U		0.50	U	
1,2-Dichloroethane	5.0	U		0.50	U		0.50	U		0.50	U	
Trichloroethene	5.0	U		0.50	U		0.50	U		1.2		
Methylcyclohexane	5.0	U		0.50	U		0.50	U		0.50	U	
1,2-Dichloropropane	5.0	U		0.50	U		0.50	U		0.50	U	
Bromodichloromethane	5.0	U		0.50	U		0.50	U		0.50	U	
cis-1,3-Dichloropropene	5.0	U		0.50	U		0.50	U		0.50	U	
4-Methyl-2-pentanone	50	U		5.0	U		5.0	U		5.0	U	
Toluene	5.0	U		0.50	U		0.50	U		0.50	U	
trans-1,3-Dichloropropene	5.0	U		0.50	U		0.50	U		0.50	U	
1,1,2-Trichloroethane	5.0	U		0.50	U		0.50	U		0.50	U	

Lab Kap Technologies, Inc.(KAP)

SDG Y9XT5

Case 45436

Site Southern Avenue Industrial Area

SOW SOM02.2, MA 2446.0

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XW0 SAIA-CPT14-130 Field_Sample Water/Trace			Y9XW2 SAIA-CPT15-60 Field_Sample Water/Trace			Y9XY7 SAIA-CPT19-45 Field_Sample Water/Trace			Y9XY8 SAIA-CPT19-60 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Tetrachloroethene	5.0	U		0.50	U		0.50	U		0.50	U	
2-Hexanone	50	U		5.0	U		5.0	U		5.0	U	
Dibromochloromethane	5.0	U		0.50	U		0.50	U		0.50	U	
1,2-Dibromoethane	5.0	U		0.50	U		0.50	U		0.50	U	
Chlorobenzene	5.0	U		0.50	U		0.50	U		0.50	U	
Ethylbenzene	5.0	U		0.50	U		0.50	U		0.50	U	
o-Xylene	5.0	U		0.50	U		0.50	U		0.50	U	
m,p-Xylene	5.0	U		0.50	U		0.50	U		0.50	U	
Styrene	5.0	U		0.50	U		0.50	U		0.50	U	
Bromoform	5.0	U		0.50	U		0.50	U		0.50	U	
Isopropylbenzene	5.0	U		0.50	UJ	B	0.50	U		0.50	U	
1,1,2,2-Tetrachloroethane	5.0	U		0.50	U		0.50	U		0.50	U	
1,3-Dichlorobenzene	5.0	U		0.50	U		0.50	U		0.50	U	
1,4-Dichlorobenzene	5.0	U		0.50	U		0.50	U		0.50	U	
1,2-Dichlorobenzene	5.0	U		0.50	U		0.50	U		0.50	U	
1,2-Dibromo-3-chloropropane	5.0	U		0.50	U		0.50	U		0.50	U	
1,2,4-Trichlorobenzene	5.0	U		0.50	U		0.50	U		0.50	U	
1,2,3-Trichlorobenzene	5.0	U		0.50	U		0.50	U		0.50	U	
1,2,3-Trichloropropane	5.0	U		0.50	U		0.50	U		0.50	U	

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample.

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XY9 SAIA-CPT19-75 Field_Sample Water/Trace			Y9XZ0 SAIA-CPT19-90 Field_Sample Water/Trace			Y9XZ1 SAIA-CPT19-105 Field_Sample Water/Trace			Y9XZ2 SAIA-CPT19-130 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
Vinyl chloride	0.50	U		0.50	U		0.50	U		2.5	U	
Bromomethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
Trichlorofluoromethane	0.50	U		0.50	U		0.50	U		2.5	U	
1,1-Dichloroethene	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U		0.50	U		0.50	U		2.5	U	
Acetone	5.0	U		5.0	U		5.0	U		25	U	
Carbon disulfide	0.50	U		0.50	U		0.50	U		2.5	U	
Methyl acetate	0.50	U		0.50	U		0.50	U		2.5	U	
Methylene chloride	0.50	U		0.50	U		0.50	U		3.2	U	C
trans-1,2-Dichloroethene	11			13			3.6			26		
Methyl tert-butyl ether	0.50	U		0.50	U		0.50	U		2.5	U	
1,1-Dichloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
cis-1,2-Dichloroethene	46		D	44		D	46		D	530		D
2-Butanone	5.0	U		5.0	U		5.0	U		25	U	
Bromochloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chloroform	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,1-Trichloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
Cyclohexane	0.50	U		0.50	U		0.50	U		2.5	U	
Carbon tetrachloride	0.50	U		0.50	U		0.50	U		2.5	U	
Benzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dichloroethane	0.50	U		0.26	J	A	0.50	U		2.5	U	
Trichloroethene	0.52			1.1			33			D	8.0	
Methylecyclohexane	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-DichloropropanD	0.50	U		0.50	U		0.50	U		2.5	U	
Bromodichloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
cis-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		2.5	U	
4-Methyl-2-pentanone	5.0	U		5.0	U		5.0	U		25	U	
Toluene	0.50	U		0.50	U		0.50	U		2.5	U	
trans-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,2-Trichloroethane	0.50	U		0.50	U		0.50	U		2.5	U	

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XY9 SAIA-CPT19-75 Field_Sample Water/Trace			Y9XZ0 SAIA-CPT19-90 Field_Sample Water/Trace			Y9XZ1 SAIA-CPT19-105 Field_Sample Water/Trace			Y9XZ2 SAIA-CPT19-130 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Tetrachloroethene	0.50	U		0.50	U		0.50	U		2.5	U	
2-Hexanone	5.0	U		5.0	U		5.0	U		25	U	
Dibromochloromethane	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dibromoethane	0.50	U		0.50	U		0.50	U		2.5	U	
Chlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
Ethylbenzene	0.50	U		0.50	U		0.50	U		2.5	U	
o-Xylene	0.50	U		0.50	U		0.50	U		2.5	U	
m,p-Xylene	0.50	U		0.50	U		0.50	U		2.5	U	
Styrene	0.50	U		0.50	U		0.50	U		2.5	U	
Bromoform	0.50	U		0.50	U		0.50	U		2.5	U	
Isopropylbenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,1,2,2-Tetrachloroethane	0.50	U		0.50	U		0.50	U		2.5	U	
1,3-Dichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,4-Dichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2-Dibromo-3-chloropropane	0.50	U		0.50	U		0.50	U		2.5	U	
1,2,4-Trichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2,3-Trichlorobenzene	0.50	U		0.50	U		0.50	U		2.5	U	
1,2,3-Trichloropropane	0.50	U		0.50	U		0.50	U		2.5	U	

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample.

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XZ4 SAIA-CPT20-60 Field_Sample Water/Trace			Y9XZ5 (D2) SAIA-CPT20-75 Field_Sample Water/Trace			Y9XZ6 (D2) SAIA-CPT20-76 Field_Sample Water/Trace			Y9XZ8 SAIA-CPT20-105 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	0.50	U		0.50	U		0.50	U		0.50	U	
Chloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
Vinyl chloride	0.50	U		0.50	U		0.50	U		0.50	U	
Bromomethane	0.50	U		0.50	U		0.50	U		0.50	U	
Chloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Trichlorofluoromethane	0.50	U		0.50	U		0.50	U		0.50	U	
1,1-Dichloroethene	0.50	U		0.50	U		0.50	U		0.50	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Acetone	5.0	U		5.0	U		5.0	U		15	U	C
Carbon disulfide	0.50	U		0.50	U		0.50	U		0.50	U	
Methyl acetate	0.50	U		0.50	U		0.50	U		0.50	U	
Methylene chloride	0.50	U	C	0.50	U		0.50	U		0.50	U	C
trans-1,2-Dichloroethene	2.0			3.5			3.6			1.2		
Methyl tert-butyl ether	0.50	U		0.50	U		0.50	U		0.50	U	
1,1-Dichloroethane	0.50	U		0.50	U		0.25	J	A	0.50	U	
cis-1,2-Dichloroethene	9.5			20			18			7.5		
2-Butanone	5.0	U		5.0	U		5.0	U		5.0	U	
Bromochloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
Chloroform	0.50	U		0.50	U		0.50	U		0.50	U	
1,1,1-Trichloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Cyclohexane	0.50	U		0.50	U		0.50	U		0.50	U	
Carbon tetrachloride	0.50	U		0.50	U		0.50	U		0.50	U	
Benzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dichloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Trichloroethene	1.5			2.0			2.0			0.55		
Methylecyclohexane	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-DichloropropanD	0.50	U		0.50	U		0.50	U		0.50	U	
Bromodichloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
cis-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		0.50	U	
4-Methyl-2-pentanone	5.0	U		5.0	U		5.0	U		5.0	U	
Toluene	0.50	U		0.50	U		0.50	U		0.50	U	
trans-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		0.50	U	
1,1,2-Trichloroethane	0.50	U		0.50	U		0.50	U		0.50	U	

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XZ4 SAIA-CPT20-60 Field_Sample Water/Trace			Y9XZ5 (D2) SAIA-CPT20-75 Field_Sample Water/Trace			Y9XZ6 (D2) SAIA-CPT20-76 Field_Sample Water/Trace			Y9XZ8 SAIA-CPT20-105 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Tetrachloroethene	0.50	U		0.50	U		0.50	U		0.50	U	
2-Hexanone	5.0	U		5.0	U		5.0	U		5.0	U	
Dibromochloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dibromoethane	0.50	U		0.50	U		0.50	U		0.50	U	
Chlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
Ethylbenzene	0.50	U		0.50	U		0.50	U		0.50	U	
o-Xylene	0.50	U		0.50	U		0.50	U		0.50	U	
m,p-Xylene	0.50	U		0.50	U		0.50	U		0.50	U	
Styrene	0.50	U		0.50	U		0.50	U		0.50	U	
Bromoform	0.50	U		0.50	U		0.50	U		0.50	U	
Isopropylbenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,1,2,2-Tetrachloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
1,3-Dichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,4-Dichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dibromo-3-chloropropane	0.50	U		0.50	U		0.50	U		0.50	U	
1,2,4-Trichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2,3-Trichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2,3-Trichloropropane	0.50	U		0.50	U		0.50	U		0.50	U	

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample.

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XZ9 SAIA-CPT20-130 Field_Sample Water/Trace			Y9Y05 (TB) SAIA-RL01-0715 Field_Sample Water/Trace			Y9Y06 (TB) SAIA-RL02-0715 Field_Sample Water/Trace			Y9Y07 (TB) SAIA-RL03-0715 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	0.50	U		0.50	U		0.50	U		0.50	U	
Chloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
Vinyl chloride	0.50	U		0.50	U		0.50	U		0.50	U	
Bromomethane	0.50	U		0.50	U		0.50	U		0.50	U	
Chloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Trichlorofluoromethane	0.50	U		0.50	U		0.50	U		0.50	U	
1,1-Dichloroethene	0.50	U		0.50	U		0.50	U		0.50	U	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Acetone	7.5	U	C	5.0	U		5.0	U		11		
Carbon disulfide	0.50	U		0.50	U		0.50	U		0.50	U	
Methyl acetate	0.50	U		0.50	U		0.50	U		0.50	U	
Methylene chloride	0.50	U		0.50	U		0.50	U		0.37	J	A
trans-1,2-Dichloroethene	7.6			0.50	U		0.50	U		0.50	U	
Methyl tert-butyl ether	0.50	U		0.50	U		0.50	U		0.50	U	
1,1-Dichloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
cis-1,2-Dichloroethene	45		D	0.50	U		0.50	U		0.50	U	
2-Butanone	5.0	U		5.0	U		5.0	U		5.0	U	
Bromochloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
Chloroform	0.50	U		0.50	U		0.50	U		0.50	U	
1,1,1-Trichloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Cyclohexane	0.50	U		0.50	U		0.50	U		0.50	U	
Carbon tetrachloride	0.50	U		0.50	U		0.50	U		0.50	U	
Benzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dichloroethane	0.35	J	A	0.50	U		0.50	U		0.50	U	
Trichloroethene	0.42	J	A	0.50	U		0.50	U		0.50	U	
Methylecyclohexane	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dichloropropane	0.50	U		0.50	U		0.50	U		0.50	U	
Bromodichloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
cis-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		0.50	U	
4-Methyl-2-pentanone	5.0	U		5.0	U		5.0	U		5.0	U	
Toluene	0.50	U		0.50	U		0.50	U		0.50	U	
trans-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U		0.50	U	
1,1,2-Trichloroethane	0.50	U		0.50	U		0.50	U		0.50	U	

Sample Location Type Matrix/Level % Solids/Lipids Units	Y9XZ9 SAIA-CPT20-130 Field_Sample Water/Trace			Y9Y05 (TB) SAIA-RL01-0715 Field_Sample Water/Trace			Y9Y06 (TB) SAIA-RL02-0715 Field_Sample Water/Trace			Y9Y07 (TB) SAIA-RL03-0715 Field_Sample Water/Trace		
	ug/L			ug/L			ug/L			ug/L		
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
1,1,2-Trichloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
Tetrachloroethene	5.0	U		5.0	U		5.0	U		5.0	U	
2-Hexanone	0.50	U		0.50	U		0.50	U		0.50	U	
Dibromochloromethane	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dibromoethane	0.50	U		0.50	U		0.50	U		0.50	UJ	B
Chlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
Ethylbenzene	0.50	U		0.50	U		0.50	U		0.50	U	
o-Xylene	0.50	U		0.50	U		0.50	U		0.50	U	
m,p-Xylene	0.50	U		0.50	U		0.50	U		0.50	U	
Styrene	0.50	U		0.50	U		0.50	U		0.50	U	
Bromoform	0.50	U		0.50	U		0.50	U		0.50	U	
Isopropylbenzene	0.50	U		0.50	U		0.50	U		0.50	UJ	B
1,1,2,2-Tetrachloroethane	0.50	U		0.50	U		0.50	U		0.50	U	
1,3-Dichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,4-Dichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2-Dibromo-3-chloropropane	0.50	UJ		0.50	U		0.50	U		0.50	U	
1,2,4-Trichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2,3-Trichlorobenzene	0.50	U		0.50	U		0.50	U		0.50	U	
1,2,3-Trichloropropane	0.50	U		0.50	U		0.50	U		0.50	U	

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D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample.

Sample Location Type Matrix/Level % Solids/Lipids Units	VBLK7P			VBLK7R			VBLK7S			VBLK7U		
	Method_Blank Water/Trace			Method_Blank Water/Trace			Method_Blank Water/Trace			Method_Blank Water/Trace		
Compound	Result	Flag	Com									
Dichlorodifluoromethane	0.50	U										
Chloromethane	0.50	U										
Vinyl chloride	0.50	U										
Bromomethane	0.50	U										
Chloroethane	0.50	U										
Trichlorofluoromethane	0.50	U										
1,1-Dichloroethene	0.50	U										
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U										
Acetone	5.0	U										
Carbon disulfide	0.50	U										
Methyl acetate	0.50	U										
Methylene chloride	0.50	U		0.50	U		0.26	J	A	0.50	U	
trans-1,2-Dichloroethene	0.50	U										
Methyl tert-butyl ether	0.50	U										
1,1-Dichloroethane	0.50	U										
cis-1,2-Dichloroethene	0.50	U										
2-Butanone	5.0	U										
Bromochloromethane	0.50	U										
Chloroform	0.50	U										
1,1,1-Trichloroethane	0.50	U										
Cyclohexane	0.50	U										
Carbon tetrachloride	0.50	U										
Benzene	0.50	U										
1,2-Dichloroethane	0.50	U										
Trichloroethene	0.50	U										
Methylecyclohexane	0.50	U										
1,2-DichloropropanD	0.50	U										
Bromodichloromethane	0.50	U										
cis-1,3-Dichloropropene	0.50	U										
4-Methyl-2-pentanone	5.0	U										
Toluene	0.50	U										
trans-1,3-Dichloropropene	0.50	U										
1,1,2-Trichloroethane	0.50	U										

Sample Location Type Matrix/Level % Solids/Lipids Units	VBLK7P			VBLK7R			VBLK7S			VBLK7U		
	Method Blank Water/Trace			Method Blank Water/Trace			Method Blank Water/Trace			Method Blank Water/Trace		
Compound	Result	Flag	Com									
Tetrachloroethene	0.50	U										
2-Hexanone	5.0	U										
Dibromochloromethane	0.50	U										
1,2-Dibromoethane	0.50	U										
Chlorobenzene	0.50	U										
Ethylbenzene	0.50	U										
o-Xylene	0.50	U										
m,p-Xylene	0.50	U										
Styrene	0.50	U										
Bromoform	0.50	U										
Isopropylbenzene	0.50	U		0.50	U		0.50	U		0.50	UJ	B
1,1,2,2-Tetrachloroethane	0.50	U										
1,3-Dichlorobenzene	0.50	U										
1,4-Dichlorobenzene	0.50	U										
1,2-Dichlorobenzene	0.50	U										
1,2-Dibromo-3-chloropropane	0.50	U										
1,2,4-Trichlorobenzene	0.50	UJ		0.50	U		0.50	U		0.50	U	
1,2,3-Trichlorobenzene	0.50	U										
1,2,3-Trichloropropane	0.50	U										

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample.

Sample Location Type Matrix/Level % Solids/Lipids Units	VBLK7X			VBLK8M			VHBLK01					
	Method_Blank Water/Trace			Method_Blank Water/Trace			Storage_Blank Water/Trace					
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Dichlorodifluoromethane	0.50	U		0.50	U		0.50	U				
Chloromethane	0.50	U		0.50	U		0.50	U				
Vinyl chloride	0.50	U		0.50	U		0.50	U				
Bromomethane	0.50	U		0.50	U		0.50	U				
Chloroethane	0.50	U		0.50	U		0.50	U				
Trichlorofluoromethane	0.50	U		0.50	U		0.50	U				
1,1-Dichloroethene	0.50	U		0.50	U		0.50	U				
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U		0.50	U		0.50	U				
Acetone	5.0	U		5.0	U		5.0	U				
Carbon disulfide	0.50	U		0.50	U		0.50	U				
Methyl acetate	0.50	U		0.50	U		0.50	U				
Methylene chloride	0.50	U		0.50	U		0.50	U				
trans-1,2-Dichloroethene	0.50	U		0.50	U		0.50	U				
Methyl tert-butyl ether	0.50	U		0.50	U		0.50	U				
1,1-Dichloroethane	0.50	U		0.50	U		0.50	U				
cis-1,2-Dichloroethene	0.50	U		0.50	U		0.50	U				
2-Butanone	5.0	U		5.0	U		5.0	U				
Bromochloromethane	0.50	U		0.50	U		0.50	U				
Chloroform	0.50	U		0.50	U		0.50	U				
1,1,1-Trichloroethane	0.50	U		0.50	U		0.50	U				
Cyclohexane	0.50	U		0.50	U		0.50	U				
Carbon tetrachloride	0.50	U		0.50	U		0.50	U				
Benzene	0.50	U		0.50	U		0.50	U				
1,2-Dichloroethane	0.50	U		0.50	U		0.50	U				
Trichloroethene	0.50	U		0.50	U		0.50	U				
Methylecyclohexane	0.50	U		0.50	U		0.50	U				
1,2-DichloropropanD	0.50	U		0.50	U		0.50	U				
Bromodichloromethane	0.50	U		0.50	U		0.50	U				
cis-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U				
4-Methyl-2-pentanone	5.0	U		5.0	U		5.0	U				
Toluene	0.50	U		0.50	U		0.50	U				
trans-1,3-Dichloropropene	0.50	U		0.50	U		0.50	U				
1,1,2-Trichloroethane	0.50	U		0.50	U		0.50	U				

Sample Location Type Matrix/Level % Solids/Lipids Units	VBLK7X			VBLK8M			VHBLK01					
	Method_Blank Water/Trace			Method_Blank Water/Trace			Storage_Blank Water/Trace					
Compound	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com	Result	Flag	Com
Tetrachloroethene	0.50	U		0.50	U		0.50	U				
2-Hexanone	5.0	U		5.0	U		5.0	U				
Dibromochloromethane	0.50	U		0.50	U		0.50	U				
1,2-Dibromoethane	0.50	UJ	B	0.50	U		0.50	U				
Chlorobenzene	0.50	U		0.50	U		0.50	U				
Ethylbenzene	0.50	U		0.50	U		0.50	U				
o-Xylene	0.50	U		0.50	U		0.50	U				
m,p-Xylene	0.50	U		0.50	U		0.50	U				
Styrene	0.50	U		0.50	U		0.50	U				
Bromoform	0.50	U		0.50	U		0.50	U				
Isopropylbenzene	0.50	UJ	B	0.50	U		0.50	U				
1,1,2,2-Tetrachloroethane	0.50	U		0.50	U		0.50	U				
1,3-Dichlorobenzene	0.50	U		0.50	U		0.50	U				
1,4-Dichlorobenzene	0.50	U		0.50	U		0.50	U				
1,2-Dichlorobenzene	0.50	U		0.50	U		0.50	U				
1,2-Dibromo-3-chloropropane	0.50	U		0.50	U		0.50	U				
1,2,4-Trichlorobenzene	0.50	UJ		0.50	U		0.50	U				
1,2,3-Trichlorobenzene	0.25	J	A	0.50	U		0.50	U				
1,2,3-Trichloropropane	0.50	U		0.50	U		0.50	U				

Com - Comments. Refer to the corresponding section in the Narrative for each letter.

D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank; BG - Background Sample.

TABLE 1B
DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," June 2008.

- U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

FORM 1B-OR
 ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9XW2

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW14031
 Lab Code: KAP Case No.: 45436 MA No.: 2446.0 SDG No.: Y9XT5
 Analytical Method: Trace VOA Level: TRACE
 Matrix: WATER Lab Sample ID: S-1136.01
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: G32653
 % Solids: _____ Date Received: 07/29/2015
 GC Column: RTX-VMS ID: 0.25 (mm) Date Extracted: _____
 Extract Concentrated: (Y/N) N Date Analyzed: 08/04/2015
 Soil Aliquot (VOA): _____ (uL) Extract Volume: _____ (uL)
 Heated Purge: (Y/N) N Extraction Type: _____
 Purge Volume: 25.0 (mL) Injection Volume: _____ (uL)
 Cleanup Types: _____ pH: 2.0 Dilution Factor: 1.0
 Concentration Units (ug/L, ug/kg): ug/L Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01	Unknown-01	2.21	1.6	J
02	Unknown-02 C ₅ H ₁₀ Hydrocarbon	2.94	1.9	J/N
03 000463-71-8	cis-1,3-dichloropropene-d4	10.55	6.5	NJ-B
04	Unknown-03	11.43	0.94	J-B
05	Unknown-04	19.91	0.67	J
06				
07	SL 9/29/15			
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E9667961	Total Alkanes	N/A		

¹ EPA-designated Registry Number.

FORM 1B-OR
ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9XY7

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW14031
 Lab Code: KAP Case No.: 45436 MA No.: 2446.0 SDG No.: Y9XT5
 Analytical Method: Trace VOA Level: TRACE
 Matrix: WATER Lab Sample ID: S-1127.04
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: G32635
 % Solids: _____ Date Received: 07/26/2015
 GC Column: RTX-VMS ID: 0.25 (mm) Date Extracted: _____
 Extract Concentrated: (Y/N) N Date Analyzed: 08/03/2015
 Soil Aliquot (VOA): _____ (uL) Extract Volume: _____ (uL)
 Heated Purge: (Y/N) N Extraction Type: _____
 Purge Volume: 25.0 (mL) Injection Volume: _____ (uL)
 Cleanup Types: _____ pH: 2.0 Dilution Factor: 1.0
 Concentration Units (ug/L, ug/kg): ug/L Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01	Unknown-01	2.22	0.97	J
02	Unknown-02	2.85	1.9	J
03	Unknown-03	2.91	4.0	J
04	004885-02-3 cis-1,3-dichloropropene d4	10.55	7.9	N/A
05	Unknown-04	11.41	0.62	J
06				
07	SL, 9/29/15			
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E9666796 ¹	Total Alkanes	N/A		

¹ EPA-designated Registry Number.

FORM 1B-OR
ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9XZ4

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW14031
 Lab Code: KAP Case No.: 45436 MA No.: 2446.0 SDG No.: Y9XT5
 Analytical Method: Trace VOA Level: TRACE
 Matrix: WATER Lab Sample ID: S-1127.01
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: G32636
 % Solids: _____ Date Received: 07/28/2015
 GC Column: RTX-VMS ID: 0.25 (mm) Date Extracted: _____
 Extract Concentrated: (Y/N) N Date Analyzed: 08/03/2015
 Soil Aliquot (VOA): _____ (uL) Extract Volume: _____ (uL)
 Heated Purge: (Y/N) N Extraction Type: _____
 Purge Volume: 25.0 (mL) Injection Volume: _____ (uL)
 Cleanup Types: _____ pH: 2.0 Dilution Factor: 1.0
 Concentration Units (ug/L, ug/kg): ug/L Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01	Unknown-01	2.22	0.50	J
02	Unknown-02	3.03	5.0	JB
03 900542-88-1	cis-1,3-dichloropropene-d4	10.55	5.0	NJB
04	Unknown-03	11.44	0.80	JB
05	Unknown-04	19.81	0.40	J
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E966796	Total Alkanes	N/A		

* EPA-designated Registry Number.

FORM 1B-OR
 ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9XZ8

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW14031
 Lab Code: KAP Case No.: 45436 MA No.: 2446.0 SDG No.: Y9XT5
 Analytical Method: Trace VOA Level: TRACE
 Matrix: WATER Lab Sample ID: S-1127.05
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: G32637
 % Solids: _____ Date Received: 07/28/2015
 GC Column: RTX-VMS ID: 0.25 (mm) Date Extracted: _____
 Extract Concentrated: (Y/N) N Date Analyzed: 08/03/2015
 Soil Aliquot (VOA): _____ (uL) Extract Volume: _____ (uL)
 Heated Purge: (Y/N) N Extraction Type: _____
 Purge Volume: 25.0 (mL) Injection Volume: _____ (uL)
 Cleanup Types: _____ pH: 2.0 Dilution Factor: 1.0
 Concentration Units (ug/L, ug/kg): ug/L Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01	Unknown-01	2.22	0.56	J
02	Unknown-02	2.62	0.64	J-B
03	Unknown-03	3.93	6.7	J-B
04	Unknown-04	3.82	0.36	J-B
05	Unknown-05	4.93	0.41	J-
000463-71-0	cis-1,3-dichloropropene-d4	10.55	7.4	NJA
07	Unknown-06	11.43	0.75	J-B
08	Unknown-07	14.86	0.71	J-
09	Unknown-08	16.24	1.3	J
10	Unknown-09	17.35	0.83	J
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E966796:	Total Alkanes	N/A		

* EPA-designated Registry Number.

FORM 1B-OR
 ORGANICS ANALYSIS DATA SHEET
 TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Y9XZ9

Lab Name: KAP TECHNOLOGIES, INC. Contract: EPW14031
 Lab Code: KAP Case No.: 45436 MA No.: 2446.0 SDG No.: Y9XT5
 Analytical Method: Trace VOA Level: TRACE
 Matrix: WATER Lab Sample ID: S-1127.06
 Sample wt/vol: 25.0 (g/mL) mL Lab File ID: G32643
 % Solids: Date Received: 07/28/2015
 GC Column: RTX-VMS ID: 0.25 (mm) Date Extracted: _____
 Extract Concentrated: (Y/N) N Date Analyzed: 08/03/2015
 Soil Aliquot (VOA): (uL) Extract Volume: (uL)
 Heated Purge: (Y/N) N Extraction Type: _____
 Purge Volume: 25.0 (mL) Injection Volume: (uL)
 Cleanup Types: pH: 2.0 Dilution Factor: 1.0
 Concentration Units (ug/L, ug/kg): ug/L Cleanup Factor: _____

CAS No.	ANALYTE	RT	EST. CONC.	Q
01	Unknown-01	2.21	0.37	J
02	Unknown-02 Ethyl Hydrocarbon	2.72	2.5	J
03	Unknown-03	2.87	2.0	J
04	Unknown-04	2.93	4.4	J
05	Unknown-05	4.22	0.99	J
06	Unknown-06	4.92	0.91	J
07-000543-88->	cis-1,3-dichloropropene-d4	10.56	6.0	NJ
08	Unknown-07	11.42	0.80	J
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10	St. 9/29/15.			
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E966796 ¹	Total Alkanes	N/A		

¹ EPA-designated Registry Number.